

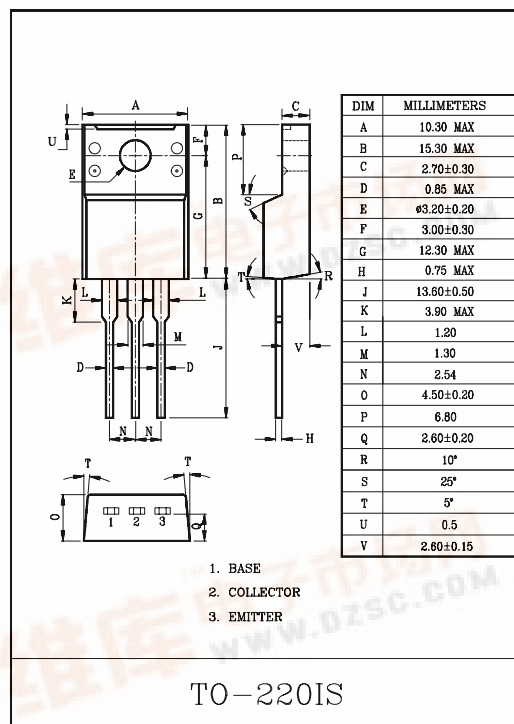
SWITCHING REGULATOR APPLICATION.  
HIGH VOLTAGE SWITCHING APPLICATION.  
HIGH SPEED DC-DC CONVERTER APPLICATION.

### FEATURES

- Excellent Switching Times  
:  $t_{on}=1.0\mu S(\text{Max.})$ ,  $t_f=0.5\mu S(\text{Max.})$  at  $I_C=1.5A$ .
- High Collector Voltage :  $V_{CEO}=400V$ .

### MAXIMUM RATINGS ( $T_a=25^\circ C$ )

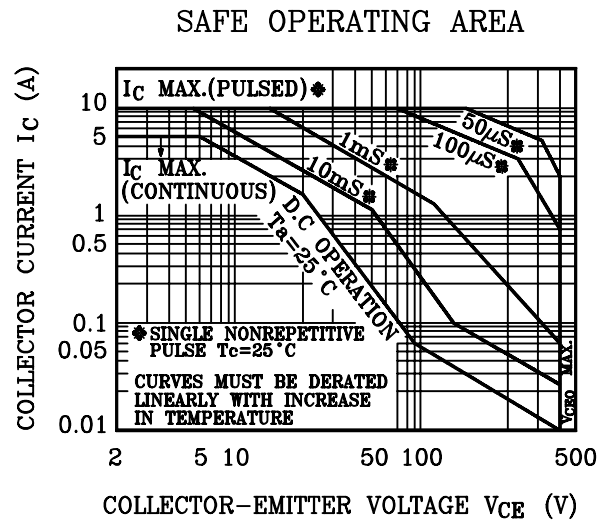
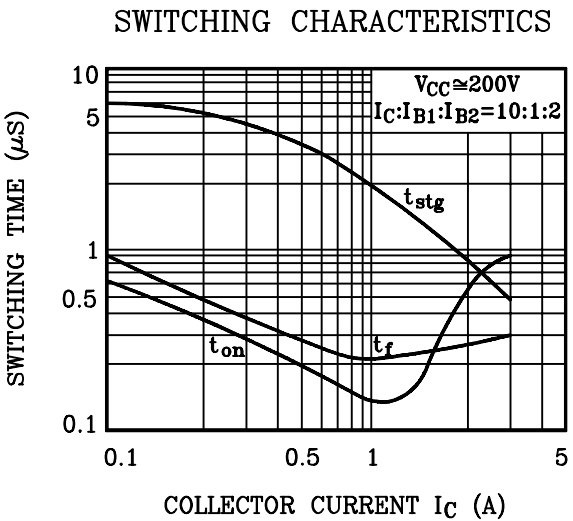
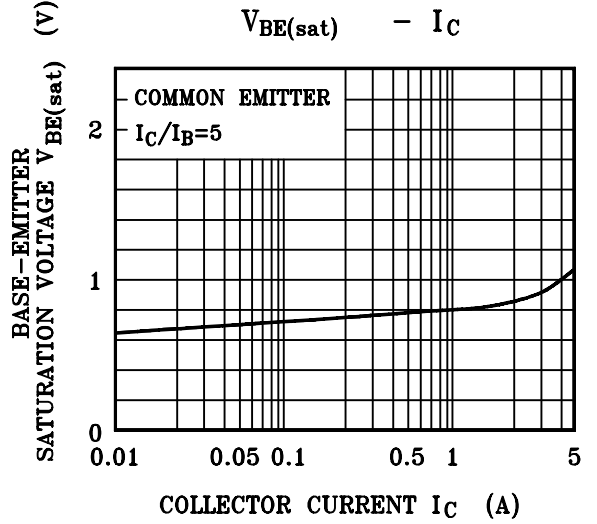
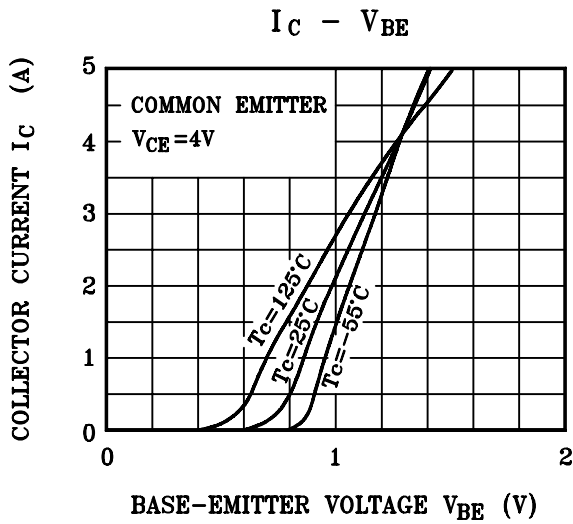
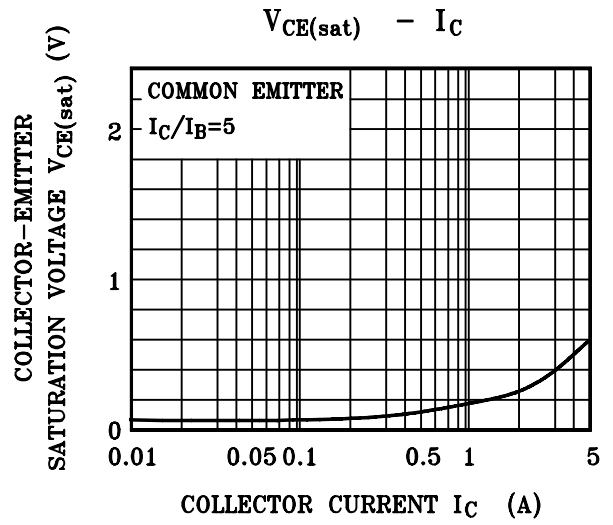
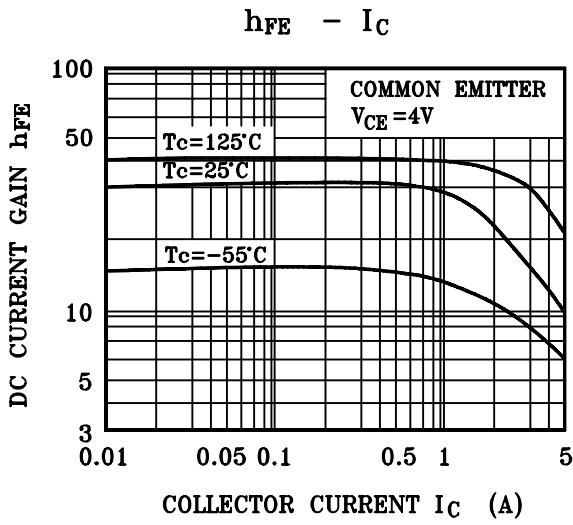
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	500	V
Collector-Emitter Voltage	$V_{CEO}$	400	V
Emitter-Base Voltage	$V_{EBO}$	7	V
Collector Current	DC	$I_C$	5
	Pulse	$I_{CP}$	10
Base Current	$I_B$	2	A
Collector Power Dissipation ( $T_c=25^\circ C$ )	$P_C$	30	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ C$



### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ C$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=500V, I_E=0$	-	-	100	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=7V, I_C=0$	-	-	100	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	400	-	-	V
DC Current Gain	$h_{FE}$	$V_{CE}=4V, I_C=0.1A$	20	-	-	
		$V_{CE}=4V, I_C=1.5A$	10	-	40	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1.5A, I_B=0.3A$	-	-	0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=1.5A, I_B=0.3A$	-	-	1.0	V
Transition Frequency	$f_T$	$V_{CE}=12V, I_E=-0.3A$	-	20	-	MHz
Switching Time	Turn-on Time	$t_{on}$	-	-	1.0	$\mu S$
	Storage Time	$t_{stg}$	-	-	2.5	
	Fall Time	$t_f$	-	-	0.5	

# KTC4419



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